

REMARKS

Claims 6 and 7 stand rejected under 35 USC 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention. Examiner states that the term "and/or" renders the claim vague. Applicant respectfully disagrees. Such a term merely replaces the designation of magnesium halide in use in that claim. Withdrawal of such rejection under 35 USC 112 is solicited.

Claims 1 and 9 – 13 stand rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over Furmidge et al '665 or Ohyama et al '335 or Ohyama '576, each applied individually. Applicant respectfully disagrees. The prior art of Furmidge et al. '665 or Ohyama et al '576 cites a metal halide lamp as claimed by Applicant including Mg metal or Mg halide. The prior art was for an ultraviolet radiation source for photochemical reaction applications with a wavelength range from 400 to 800 nm.

The above-mentioned prior art with Mg halide fill was not for visible light general lighting and does not apply to lamp dimming for energy saving. It is therefore not obvious at the time the invention was made to a person having ordinary skill in the art to predict based on the prior art that Mg

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halide with other halide fills in a discharge lamp can have good general lighting performance with superior dimming performance for energy saving applications. Withdrawal of the rejection of claims 1 and 9 – 13 is therefore earnestly solicited.

Claims 1, 3 – 9 and 11 stand rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over Caruso '948. Applicant respectfully disagrees. In the present Application, the Mg halide dose amount depends on the chemical ratio of the arc tube (between 5 and 50% of the total molar quantity of the total halides) for good lamp performance including dimming. The '948 Patent to Caruso discloses the Mg base amount depends on the surface area of the arc tube to reduce the arc tube base reaction. In the present Application, the Mg halide dose amount, if calculated using surface area, is much higher than the $3\mu\text{g}/\text{cm}^2$ and $8\mu\text{g}/\text{cm}^2$ as recited in the Caruso '948 Patent. It will be much more than $100\ \mu\text{g}/\text{cm}^2$, and preferably $265\ \mu\text{g}/\text{cm}^2$ to satisfy the dimming characteristics. Withdrawal of such rejection of claims 1, 3-9 and 11 is therefore solicited.

Claims 1, 9 and 11 stand rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over Ohyama et al

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“059, and claim 8 stands rejected under 35 USC 103(a) as being unpatentable over Furmidge et al ‘665 or Ohyama et al ‘335 or Ohyama ‘576 or Caruso ‘948 or Ohyama et al. ‘059, each applied individually. Applicant respectfully disagrees with Examiner.

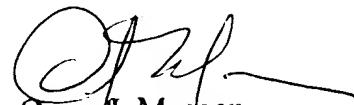
Ohyama et al. ‘059 is using Mg metal, iron metal or Mg halide for vapor discharge to produce ultraviolet rays for photochemical reactions in the wavelength of 250 to 400 nm. Ohyama’s patents using Mg is not for visible light generation and have nothing to do with lamp dimming. Therefore, independent claims 1, 9 and 11 and dependent claim 8 are believed to be allowable over the art of record\ and that the rejections thereof under 35 UAC 102(b) and 35 USC 103(a) should be withdrawn, such action being requested.

Applicant believes that it is not obvious at the time the invention was made to a person having ordinary skill in the art, to predict, based on Ohyama’s patents that Mg halide with other rare earth halides can have good visible lighting performance with superior dimming characteristics for energy saving applications. Passage to allowance of the present Application is earnestly requested.

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Should the Examiner yet believe that any issue remains unresolved,
the Examiner is invited to call the undersigned for a discussion of same.

Respectfully submitted,



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